

What is claimed is:

1. An image forming apparatus which can be used with a plurality of attachment units each of which includes a controlled element, comprising:

a main section;

signal lines which connect said controlled elements to said main section, to thereby realize a communication between each one of said controlled elements and said main section; and

selective control lines which connect said main section respectively with said attachment units, to thereby select one of said attachment units to which said main section is to communicate,

wherein said main section and said plurality of attachment units are connected with each other in a cascade arrangement by a line group which contains said signal lines and said selective control lines, and via said line group, communications are established between said main section and said controlled elements which are respectively disposed to said plurality of attachment units.

2. The image forming apparatus of claim 1, wherein said selective control lines are provided in accordance with a cascade connection count of said attachment units relative to said main section.

3. The image forming apparatus of claim 1, wherein when

said main section activates any one of said selective control lines, a current path is established via said signal lines between said main section and said controlled element which is disposed to said attachment unit which corresponds to thus activated selective control line.

4. The image forming apparatus of claim 1, wherein each one of said attachment units comprises:

an upstream-side connector which electrically connects said line group between this attachment unit and said attachment unit which is cascaded on the upstream side, which is closer to said main section than this attachment unit in the order of connection, or said main section; and

a downstream-side connector which electrically connects said line group between this attachment unit and said attachment unit which is cascaded on the downstream side which is opposite to the upstream side in the order of connection.

5. The image forming apparatus of claim 4, wherein said main section comprises a main-section connector to connect said line group electrically to said attachment unit, and

said main-section connector and said upstream-side connector are structured so as to be connected with said downstream-side connector.

6. The image forming apparatus of claim 4, wherein a relay substrate, which is for mutually connecting straight-joint harnesses

connected respectively to said upstream-side connector and said downstream-side connector, is disposed inside each one of said attachment units.

7. The image forming apparatus of claim 4, wherein in each one of said attachment units, internal wirings are installed between said upstream-side connector and said downstream-side connector in such a manner that the position of a contact in said upstream-side connector assigned to said selective control line corresponding to this attachment unit is identical between said attachment units.

8. The image forming apparatus of claim 1, wherein said plurality of attachment units have the same function with each other.

9. The image forming apparatus of claim 8, wherein said plurality of attachment units have the same structure with each other.